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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Rainer Graumann

P00,1994

8814

26574

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10/31/2006

SCHIFF HARDIN, LLP  
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EXAMINER

MEI, XU

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/778,497

Applicant(s)

GRAUMANN, RAINER

Examiner

Xu Mei

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This communication is responsive to the applicant's arguments dated 08/16/2006.
2. Applicant's arguments with respect to claims 1-13 and 15-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Ballantine (US-2,165,124).

Regarding Claim 1, Ballantine discloses a fabric garment consisting of a fabric neckband having a pocket therein and having a microphone (M) removable contained in the pocket of the garment (see Figs. 1-3, adjustable elastic neckband element B having fabric cover for microphone M that is part of the neckband; Fig. 2 shows the neckband is having pocket for casing the microphone, the microphone being pocketed inside the neckband). It is inherent that the microphone is removably contained, as indeed, any two members contained together are capable of being removed (see also col. 2, lines 40-50).

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For what's called for in claim 3, see Fig. 3 and col. 1, lines 39-42.

Regarding Claim 4, Ballantine further discloses a contact electrically connected to the microphone disposed at an exterior surface of the fabric garment, and a cable having a mating contact, engageable with said contact, for transmitting signals from said microphone to a remote location (the casting member is being removably engaged to exterior of the neckband as shown in Fig. 2 and have wire connected to microphone).

Regarding Claim 5, Ballantine further disclose a cable connected to said microphone for transmitting signal from said microphone to a remote location, said fabric garment having an interior and an exterior and said microphone being disposed in the interior of said fabric garment, and said fabric garment having an opening through which said cable proceeds from said interior of said fabric garment to said exterior of said garment (see Fig. 2).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ballantine.

Regarding Claim 2, Although Ballantine does not disclose that the microphone neckband as discussed in claim 1 above is to be worn in a medical environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made that a microphone headband can be worn in any environment including a medical environment since Ballantine does not limit the garment to be used in any one kind of specific environment.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ballantine in view of Ingalls (US-4,607,383).

Regarding claim 7, Ballantine does not disclose that the microphone neckband as discussed in claim 1 above including an electrical filter circuit for suppressing disturbing signals. However, electrical filter circuit for suppressing disturbing signal (noise) is old and well know in the art, and Ingalls discloses a neckband microphone having and electrical filter circuit (Fig. 8) for suppressing disturbing signal (noise), see col. 4, line 67-col. 5, line 46. It would have been obvious to one of ordinary skill in the art to modify the microphone neckband of Ballantine with a electrical filter circuit for suppressing disturbing noise signal as taught by Ingalls in order to suppress the unwanted noise signal to produce a more intelligible voice signal receive by microphone.

8. Claims 6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballantine in view of Wang et al (US-5,757,929, hereafter, Wang).

Regarding claims 6 and 8, Ballantine disclosed the microphone neckband as discussed in claim 1 above, but not clearly showing wireless transmitting of the received microphone signal as claimed. Wang (see Figs. 1-2) discloses a wireless transmitter electrically connected to the microphone for wirelessly transmitting signals generated by said microphone to a remote location (transmitter 54) in a communication system. It would have been obvious to one of ordinary skill in the art to modify the microphone neckband of Ballantine with a wireless transmitter as taught by Wang in order to provide wireless signals transmission for the signal generated by the microphone to a desired remote location. As for claim 8, Wang discloses the communication system having signal transmitting arrangement (transmitter 54) for transmitting signal, corresponding to voice signals picket up by said microphone, and a receiving unit (remote transceiver 26 of Fig. 1) for receiving the transmitted microphone signal from transmitter 54.

Regarding Claim 9, Wang further discloses the signal transmitting arrangement comprises a cable electrically connecting said microphone and said reception unit (wires 66).

Regarding Claim 10, Wang further discloses said signal transmitting arrangement comprises a wireless transmitter (54) electrically connected to said microphone and located at said fabric garment, and a wireless receiver located at a reception unit for receiving signals from said wireless transmitter (remote transceiver 26 of Fig. 1 for receiving the transmitted microphone signal from transmitter 54).

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9. Claims 11, 13 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combinations of Ballantine and Wang as applied to claim 8 above, and further in view of Murphy et al. (Hereinafter "Murphy") (US Patent 5,544,654).

Regarding Claims 11 and 13, the combinations of Ballantine and Wang does not disclose controlling a medical-technical device by a voice signal. Murphy discloses voice control of a medical-technical device by using voice control (Fig. 10) in order to avoid the use of a keyboard or a footswitch. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include voice control of a medical-technical device for the microphone neckband device of Ballantine and Wang, in order to provide voice control for operating the medical-technical device while allowing full use of hands to perform a procedure at the same time.

Regarding Claim 15, Ballantine discloses a neckband for pocketing the microphone in Fig. 2.

For what's called for in claim 16, see Fig. 3 and col. 1, lines 39-42 of Ballantine.

Regarding Claim 17, Wang further discloses electrically connecting a contact to said microphone and making said contact accessible at an exterior surface of said fabric garment (wires 66), connecting a mating contact at a first end of an electrical cable to said contact (end or wires 66), and connecting an opposite end of said cable to said reception unit, and transmitting said signals via said cable to said reception unit (wires 66).

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Regarding Claim 18, Wang further discloses disposing said microphone in said pocket in an interior of said fabric garment, and wherein the step of transmitting said signals comprises providing an electrical cable (66) in electrical connection with said microphone and guiding said cable through an opening in said fabric garment from the interior of said fabric garment to an exterior of said garment (Col. 7, lines 5-14), and connecting an opposite end of said cable to said reception unit (receiver 64 and transmitter 54).

Regarding Claim 19, Wang further discloses providing a wireless transmitter in electrical connection with said microphone (54), providing a wireless receiver at said reception unit for receiving signals from said wireless transmitter (remote transceiver 26 of Fig. 1 for receiving the transmitted microphone signal from transmitter 54) and wirelessly transmitting said signals produced by said microphone from said transmitter 54 to said receiver 26.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combinations of Ballantine and Wang as applied to claim 8 above, and further in view of Ingalls (US-4,607,383).

Regarding claim 12, the combinations of Ballantine and Wang does not disclose that the microphone neckband including an electrical filter circuit for suppressing disturbing signals. However, electrical filter circuit for suppressing disturbing signal (noise) is old and well known in the art, and Ingalls discloses a neckband microphone having an electrical filter circuit (Fig. 8) for suppressing disturbing signal (noise), see



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col. 4, line 67-col. 5, line 46. It would have been obvious to one of ordinary skill in the art to modify the microphone neckband of Ballantine and Wang with a electrical filter circuit for suppressing disturbing noise signal as taught by Ingalls in order to suppress the unwanted noise signal to produce a more intelligible voice signal receive by microphone.

11. Claim 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballantine/Wang/Murphy as applied to claim 13 above in further view of Ingalls (US Patent 4,607,383).

Regarding claim 20, the combinations of Ballantine, Wang and Murphy does not disclose that the microphone neckband including an electrical filter circuit for suppressing disturbing signals. However, electrical filter circuit for suppressing disturbing signal (noise) is old and well know in the art, and Ingalls discloses a neckband microphone having and electrical filter circuit (Fig. 8) for suppressing disturbing signal (noise), see col. 4, line 67-col. 5, line 46. It would have been obvious to one of ordinary skill in the art to modify the microphone neckband of Ballantine, Wang and Murphy with a electrical filter circuit for suppressing disturbing noise signal as taught by Ingalls in order to suppress the unwanted noise signal to produce a more intelligible voice signal receive by microphone.

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**Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Aileo, Davis, Sensabaugh, and Torres are pertinent references that disclose various microphone devices mounting in a neckwear or head protector.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xu Mei whose telephone number is 571-272-7523. The examiner can normally be reached on maxi flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Xu Mei  
Primary Examiner  
Art Unit 2615  
10/23/2006